

## Indian Statistical Institute

Indian Statistical Institute is a unique institution devoted to the research, teaching and application of statistics, natural sciences and social sciences. It is declared by an Act of Parliament as an Institute of National Importance.

Over the years the Institute has grown as a multi-disciplinary organization.

It functions as a University empowered to award degrees up to Ph.D.; as a Corporation in undertaking large scale projects; as a Firm of Consultants to industries to improve Quality, Reliability & Efficiency and as a Meeting place of Scientists, Economists & Literary figures from all parts of the world.

### Role & Function of SQC & OR Division

Pioneer and leader in blending statistical theory with practice and institutionalizing the continuous improvement process into a sustaining system.

To strengthen national economy through continual search for excellence in Quality.

To develop highly skilled professionals capable of self actualization.

To disseminate the basic concepts and techniques for Quality Improvement by organizing Training programs, Workshops and In-house programs.

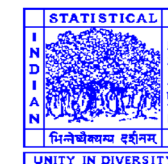


### Address:

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Indian Statistical Institute  
Bangalore



## Certified Reliability Engineering Program

Date:  
06 - 09 February 2025

Venue:  
Indian Statistical Institute

Web : <http://www.isibang.ac.in>

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## *Certified Reliability Engineering*

### About Reliability Engineering

Reliability engineering is applied in various industries, including aerospace, automotive, electronics, manufacturing, software development, etc. The primary aim is to identify and mitigate potential points of failure, thereby enhancing the dependability and longevity of products or systems. Incorporating reliability engineering practices into the design, development, and maintenance processes can help organizations to improve product quality, reduce costs associated with failures and downtime, and enhance customer satisfaction.

This course designed to equip participants with the skills and knowledge needed to ensure the dependability and performance of systems and products.

### Course Fee

Rs.4000 + tax (18% of 4000)

### Benefits

The participants will acquire the knowledge required for

- Estimation of Reliability using Distribution Fitting, Bootstrap Methodology and Censored Data Analysis.
- Non-parametric estimation of survival function using Kaplan-Meier method
- Generating insights on Reliability through Stress—Strength Analysis
- System Reliability Prediction
- Performing Accelerated Life Testing
- Reliability Testing and usage of reliability test plans
- Maintainability and Availability Planning
- Analysis of Reliability Growth and estimation of Optimum Replacement Time
- Hands on experience on the usage of tools (MS Excel and Python) for reliability engineering

### Course Content

1. Introduction to Reliability & Basic Statistics
2. Introduction to Python
3. FMEA & Fault Tree Analysis
4. Probability Plotting, Distribution Fitting and Reliability Estimation
5. Censored Data Analysis
6. Bootstrap Methodology
7. Kaplan-Meier methodology for Multiply censored data
8. Stress—Strength Analysis
9. System Reliability Estimation
10. Reliability Test Plans & Accelerated Life Testing

### Important Dates

1. Last date for submission of Nominations: **03 February 2025**
2. Program dates: **06 - 09 February 2025**
3. Timing: **9:30 am – 5:30 pm**

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